

1 **CLAIMS**

2 I claim:

3 1. A multi-purpose construction assembly comprising:

4 a plurality of parallel vertical stud members of equal length possessing a first terminal  
5 end and a second terminal end;

6 a means for reinforcing said plurality of studs comprising a unitary elongated metal  
7 plate-like member formed of a finite length defined by two parallel upright studs terminating in  
8 a first end and a second end, said unitary plate-like member possesses a first horizontal edge  
9 and a second horizontal edge between the first end and second end; a first flange extending  
10 perpendicularly upwards from said first end and a second flange extending perpendicularly  
11 upward from said second end to permit fastening to the adjacent studs, said first end of the  
12 elongated metal plate incorporates a pair of parallel notches along the horizontal axis, said first  
13 horizontal edge and the second horizontal edge of the elongated plate are folded downward and  
14 perpendicular to the elongated plate forming a first downward flange and a second downward  
15 flange, said first downward flange of the first horizontal edge is substantially longer than the  
16 second downward flange of the second horizontal edge and the width of first downward flange  
17 extends to and overlaps the adjacent parallel upright studs which define the width of said  
18 elongated plate-like member located between each stud member whereby said assembly can  
19 support excessive loads due to weight, wind, or sheer forces;

20 an anchor means attached to said second terminal end of said parallel stud members; and

21 a first horizontal expansion-contraction means slideably attached to said first terminal  
22 end of said parallel stud members whereby said assembly will be able to expand or contract in  
23 respect to vertical environmental forces and , expanded or reduced to fit within a space without  
24 disassembling or cutting said assembly.

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26 2. A multi-purpose construction assembly as defined in claim 1 wherein the anchor means  
27 comprises a second horizontal expansion-contraction means slideably attached to said second  
28 terminal end of said parallel stud members whereby said assembly will be able to expand or

1 contract in response to vertical environmental forces and , expanded or reduced to fit within a  
2 space without disassembling or cutting said assembly.

3  
4 3. A multi-purpose construction assembly as defined in claim 1 wherein a first vertical  
5 expansion-contraction means is slideably attached parallel to a first terminal vertical stud  
6 member, and slideably attached perpendicular to said first horizontal expansion-contraction  
7 means and to said anchor means whereby said assembly will be able to expand or contract in  
8 response to horizontal and vertical environmental forces and , expanded or reduced to fit within  
9 a space without disassembling or cutting said assembly.

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11 4. A multi-purpose construction assembly as defined in claim 3 wherein a second vertical  
12 expansion-contraction means is slideably attached parallel to a second terminal vertical stud  
13 member opposite said first terminal vertical stud member, and slideably attached perpendicular  
14 to said first horizontal expansion-contraction means and said anchor means whereby said  
15 assembly will be able to expand or contract in response to horizontal and vertical environmental  
16 forces and , expanded or reduced to fit within a space without disassembling or cutting said  
17 assembly.

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19 5. A multi-purpose construction assembly as defined in claim 2 wherein a second vertical  
20 expansion-contraction means is slideably attached to a first terminal vertical stud member and  
21 slideably attached to said first horizontal expansion-contraction means and slideably attached to  
22 said anchor means whereby said assembly will be able to expand or contract in response to  
23 vertical and horizontal environmental forces and , expanded or reduced to fit within a space  
24 without disassembling or cutting said assembly.

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26 6. A multi-purpose construction assembly as defined in claim 5 wherein a second vertical  
27 expansion-contraction means is slideably attached to a second terminal vertical stud member and  
28 slideably attached to said first horizontal expansion-contraction means and slideably attached to

1 said anchor means whereby said assembly will be able to expand or contract in response to  
2 vertical and horizontal environmental forces and , expanded or reduced to fit within a space  
3 without disassembling or cutting said assembly.

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5 7. A multi-purpose construction assembly comprising:

6 a plurality of parallel stud members of decreasing length possessing a first terminal end  
7 which forms the hypotenuse of a triangle, and a second terminal end;

8 a means for reinforcing said plurality of studs comprising a unitary elongated  
9 metal plate-like member formed of a finite length defined by two parallel upright studs  
10 terminating in a first end and a second end, said unitary plate-like member possesses a first  
11 horizontal edge and a second horizontal edge between the first end and second end; a first flange  
12 extending perpendicularly upwards from said first end and a second flange extending  
13 perpendicularly upward from said second end to permit fastening to the adjacent studs, said first  
14 end of the elongated metal plate incorporates a pair of parallel notches along the horizontal axis,  
15 said first horizontal edge and the second horizontal edge of the elongated plate are folded  
16 downward and perpendicular to the elongated plate forming a first downward flange and a  
17 second downward flange, said first downward flange of the first horizontal edge is substantially  
18 longer than the second downward flange of the second horizontal edge and the width of first  
19 downward flange extends to and overlaps the adjacent parallel upright studs which define the  
20 width of said elongated plate-like member located between each stud member whereby said  
21 assembly can support excessive loads due to weight, wind, or sheer forces;

22 an anchor means fixedly attached to said first terminal end of said parallel stud members  
23 along the descending slope of the hypotenuse; and

24 an expansion-contraction means slideably attached to said second terminal end of said  
25 parallel stud members whereby said assembly can expand or contract in response to vertical  
26 forces and be expanded or reduced to fit within a space without disassembling or cutting said  
27 assembly.

1 8. A multi-purpose construction assembly as defined in claim 7 wherein a second  
2 expansion-contraction means is slideably attached to the longest parallel stud member, slideably  
3 attached to the first expansion-contraction means, and fixedly attached to said anchor means said  
4 assembly can expand or contract in response to horizontal forces and be expanded or reduced to  
5 fit within a space without disassembling or cutting said assembly.

6 9. The multi-purpose construction assembly defined in claim 1 wherein the means for  
7 reinforcing said plurality of studs comprises box-like structured formed from a pair of  
8 complementary unitary elongated metal plate-like members formed of a finite length defined by  
9 two parallel upright studs;

10 said unitary elongated metal plate-like member terminates in a first end and a  
11 second end;

12 said unitary plate-like member possesses a first horizontal edge and a second  
13 horizontal edge between the first end and second end;

14 said first end and second end of the elongated metal plate-like member extend  
15 generally upward and perpendicular from the elongated metal plate to form a first flange on said  
16 first end and a second flange on said second end to permit the fastening of the elongated plate to  
17 the surface of the adjacent parallel upright studs;

18 said first end of the elongated metal plate incorporates a pair of parallel notches  
19 along the horizontal axis;

20 said first horizontal edge and the second horizontal edge of the elongated plate  
21 are folded downward and perpendicular to the elongated plate forming a first downward flange  
22 and a second downward flange;

23 said first downward flange of the first horizontal edge is substantially longer than  
24 the second downward flange of the second horizontal edge and the width of first downward  
25 flange is greater than the width of said elongated plate-like member.

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27 10. The multi-purpose construction assembly defined in claim 7 wherein the means for  
28 reinforcing said plurality of studs comprises box-like structured formed from a pair of

1 complementary unitary elongated metal plate-like members formed of a finite length defined by  
2 two parallel upright studs;

3               said unitary elongated metal plate-like member terminates in a first end and a  
4 second end;

5               said unitary plate-like member possesses a first horizontal edge and a second  
6 horizontal edge between the first end and second end;

7               said first end and second end of the elongated metal plate-like member extend  
8 generally upward and perpendicular from the elongated metal plate to form a first flange on said  
9 first end and a second flange on said second end to permit the fastening of the elongated plate to  
10 the surface of the adjacent parallel upright studs;

11              said first end of the elongated metal plate incorporates a pair of parallel notches  
12 along the horizontal axis;

13              said first horizontal edge and the second horizontal edge of the elongated plate  
14 are folded downward and perpendicular to the elongated plate forming a first downward flange  
15 and a second downward flange;

16              said first downward flange of the first horizontal edge is substantially longer than  
17 the second downward flange of the second horizontal edge and the width of first downward  
18 flange is greater than the width of said elongated plate-like member.

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21 11. A method of constructing a multi-purpose construction assembly comprising:

22              placing a plurality of equal length stud members possessing a first terminal end and  
23 second terminal end parallel to each other;

24              attaching a first expansion-compression means to the first terminal end of said parallel  
25 stud members;

26              attaching an anchoring means to the second terminal end of said parallel stud members;

27              inserting a means to reinforce the parallel studs between each pair of parallel studs.

28 12. A method of constructing a multi-purpose construction assembly comprising:

1 placing a plurality of stud members possessing a first terminal end and second terminal  
2 end parallel to each other;  
3 attaching a first horizontal expansion-compression means to the first terminal end of said  
4 parallel stud members;  
5 attaching a second horizontal expansion-compression means to the second terminal end  
6 of said parallel stud members;  
7 inserting a means to reinforce the parallel studs between each pair of parallel studs.

8 13. A method according to claim 11 further comprising attaching a first vertical expansion-  
9 contraction means to a first terminal stud between said first horizontal expansion-contraction  
10 means and said anchor means.

11 14. A method according to claim 13 further comprising attaching a second vertical  
12 expansion-contraction means to a second terminal stud between said first horizontal expansion-  
13 contraction means and said anchor means.

14 15. A method according to claim 12 further comprising attaching a first vertical expansion-  
15 contraction means to a first terminal stud between said first horizontal expansion-contraction  
16 means and second horizontal expansion-contraction means.

17 16. A method according to claim 15 further comprising attaching a second vertical  
18 expansion-contraction means to a second terminal stud between said first horizontal expansion-  
19 contraction means and second horizontal expansion-contraction means.

20 17. A method of constructing a multi-purpose construction assembly comprising:  
21 placing a plurality of vertical stud members of decreasing length each possessing an  
22 upper terminal end and a lower terminal end parallel to each other;  
23 attaching an anchoring means to the upper terminal end of said parallel stud members;  
24 attaching a horizontal expansion-compression means perpendicular to the lower terminal  
25 end of said parallel stud members; and  
26 inserting a means to reinforce the parallel studs between each pair of parallel vertical  
27 studs members.

28 18. A method according to claim 17 further comprising attaching a vertical expansion-

1 contraction means to the longest terminal stud.  
2 19. A method of constructing a multi-purpose construction assembly comprising:  
3 placing a plurality of vertical stud members of decreasing length each possessing an  
4 upper terminal end and a lower terminal end parallel to each other;  
5 attaching a first anchoring means to the upper terminal end of said parallel stud  
6 members;  
7 attaching a second anchoring means to the lower terminal end of said parallel stud  
8 members;  
9 attaching a vertical expansion-compression means to the longest terminal vertical stud  
10 member; and  
11 inserting a means to reinforce the parallel studs between each pair of parallel vertical  
12 studs members.